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Vegetable Garden

Vegetable gardening can be broadly classified into the following types ***on the basis of production and utilization of the product-***

1. Home or Kitchen garden.
2. Commercial garden.
3. Floating garden.

Kitchen garden: It may be defined as one type of vegetable garden which is done to meet up the home requirements of individual family for vegetables and sorts of spices crops. In kitchen garden, vegetables are cultivated in smaller scale to fulfill individual requirement, intensively.

Commercial garden: When vegetable are cultivated in a large area with the purpose of commercial marketing of vegetables is called commercial garden.

Characteristics of Kitchen garden

1. It is done to meet up the individual family requirement.
2. It is done in smaller scale.
3. Different type of vegetables are grown on it at a time.
4. Kitchen garden is done in the back side of house but it gets plenty of sunshine.
5. Both male and female may work together in this garden.
6. More care of the individual plant is taken in case of kitchen garden as compared to commercial garden.
7. Organic manure is mainly used rather than inorganic fertilizers.
8. Seed used in this garden are mainly kept by their own farm from previous season.

Characteristics of Commercial garden

1. It is done for the purpose of commercial market of vegetables.
2. Generally, it is done in a large scale.
3. Normally, single land occupies a single vegetables crop.
4. It is done in the high and medium high land.
5. It is mainly based on the inorganic fertilizers and pesticides.
6. Less care of individual plant is taken in commercial garden comparing kitchen garden.

Floating garden: In this garden, vegetables are grown in water on a floating base like boat.

Distinguish between Kitchen garden and Commercial garden are given below-

Kitchen garden	Commercial garden
Kitchen garden may be defined as one type of vegetable garden.	When vegetable are cultivated in a large area with the purpose of commercial marketing of vegetables is called commercial garden.
It is done in small scale.	It is done in large scale.
Different kinds of vegetables are chosen without considering.	It is chosen with considering the market demand.
In kitchen garden, many types of vegetables are grown.	In commercial garden, one type of vegetables are grown which have market demand.
It is mainly used to fulfill the requirement of family, not for sale.	It mainly done for commercial purpose.
Organic manure mainly used in this garden.	Chemical fertilizer mainly used in this garden.
Freshness is of great importance from the stand point of edibility and food value.	It is difficult to get fresh vegetable from market place.

Organic Farming

Definition

Organic farming may be defined, as the production system which largely avoids the extensive use of synthetically compound fertilizers, pesticides and growth regulators. Organic farming system, therefore depends on crop rotation, crop residues, animals manures, legume and green manures, off farm organic waste and aspect of biological pest control to maintain soil productivity and tilth to supply plant nutrients and to control disease and weeds.

Principles of organic farming

- Organic farming in agriculture is a domestic way of farming which decides the production of goods in high quality.
- To establish agro forestry system, organic farming plays significant role. It adds litter fall, and organic matter to the soil and nitrogen fixing trees added nitrogen to the soil.
- Recycling of nutrient plays an important role in Organic farming.
- It involves in soil fertility and environmental balance.

Objectives of Organic farming

- Organic farming practices increase humus level in the soil, leading to improved water holding capacity.
- Organic farming system utilize practices that avoid or exclude the use of synthetic compounded fertilizers, pesticides, growth regulators and livestock feed additives, resulting in benefit to the environment and to human health.
- Organic farming system advocates the use of localized resources such as plant and animal waste.
- Organic farming aims to maintain the genetic diversity of the agricultural system and its surroundings,

including the protection the plant wild life habitats.

- Organic farming aims to meet the consumer demand for food products that are nutritions low or free of chemical residues.

Importance of organic farming

1. Soil conservation and maintenance of soil fertility.
2. To ensure long term fertility of soil.
3. To ensure maintenance of organic matter level of the soil.
4. Less pollution of water.
5. To avoid all form of pollution that may occur from agricultural techniques.
6. Production of nutritional quality.
7. Less utilization of non-renewable external inputs and energy.
8. To allow genetic diversity of agricultural system including protection and wild habitat.

Characteristics of organic farming

1. It increase water holding capacity.
2. Long lasting fertility.
3. Ensure soil aeration.
4. Proper O_2 supply to micro organism and soil insect.
5. Condition for the easy penetration of roots.
6. It is good for soil structure.
7. Ensure quality production.
8. No residual effect by organic manure.

Various Organic Manure

Organic Manure	N %	P %	K %
Well decomposed cowdung	0.5	0.1	0.5
Poultry litter	1.0	1.5	0.8
FYM	0.8	0.3	1.0
Water hyacinth compost	3.0	2.0	3.0
Mustard oil cake (Decomposed)	5.2	1.8	1.2
Ash	0	2.0	0.5
Bone meal	4.0	4.0	3.0-3.5
Blood	10-12	1.0-1.5	0.6-0.8

Preparation of organic Insecticide used in organic farming

Leaves of Ata and Sharifa : 1 part of ata or sharifa leaves are made into paste with 5 parts water, then it kept for 5-10 minutes and filtered. After completing filtration, the liquid is sprayed over crop. Besides, 200-250 gm dried seed of ata is grinded first and then mixed with 1 litre of water. The mixture is allowed to keep over night and spraying it to the crop in the next day.

Control of Pest- Aphids, Red pumpkin beetle, moth can be controlled.

Biskathali : The extract of leaves and stem of Biskathali is mixed with water maintaining a ratio of 1 kg : 8-10 L. Thus the mixture is filtered with the help of fine textured cloth. Finally, the filtrate is sprayed to crop.

Control insect- Flies, Aphids.

Chilli (*Capsicum frutescens*) : First of all, 100 g of ground chilli are mixed with 1 litre of water and kept for over night. In the next morning, foam water produced by adding 50 g of soap with 5 litre of water is mixed with previously made chilli paste. Finally, it is applied to crops.

Control of Insect- Ants, Aphids.

Control of Disease- TMV, Tungro diseases.

Neem fruits and leaves : The neem fruits are collected when it attains a colour of green to yellow and sun dried. Then, fruits are grind and 2 harmful powder is mixed with 1 litre of water and kept for overnight with cover. The mixture can be sprayed in the next day as organic Insecticide.

Again, 1 kg of neem leaves mixed with 6 litre of water and boiled for 15-20 minutes. Then, the mixture is cooled and strained. The strained solution is ready to spray.

Control- Flies, beetle, caterpillar.

Tomato : 1 kg of tomato leaves and stems are mixed with 5 litre of water and the mixture is boiled for 15-20 minutes. Then cooling and straining are done and finally sprayed to crops.

Control- Flies, larvae.

Urine of Animal : The urine is collected in a pot and then covered with polythene for 2 weeks. After that, 1 part urine is mixed with 2 parts water and sprayed to plant as Insecticides.

Allamanda leaves and flowers : First of all leaves of allamanda are boiled for few minutes and then 1 litre of boiled material is mixed with 5 litre of water. Finally, the solution is sprayed as plants, which acts as a fungicides.